



Principal Protected Notes

Genti Droboniku
CDIAC Research Unit

INTRODUCTION

The low interest rate environment experienced in the last decade has spurred a demand among some local agencies for products which can provide the safety and liquidity of a fixed income instrument with the opportunity for above market returns. Principal Protected Notes (PPNs) and similarly structured instruments are being promoted to satisfy this demand.

California Government Code Section 53601.6(b) prohibits local agencies from investing in products which have a probability of returning zero interest at maturity. PPNs are complex products typically structured with two components: 1) a zero coupon bond¹ designed to return 100 percent of principal at maturity, and 2) an option or derivative component, which allows the investor to participate in the appreciated value, if any, of an underlying index, such as the S&P 500, Russell 2000, and Nikkei 225, LI-

BOR, specialized ETFs, or foreign currency. This derivative component will result in zero interest if the underlying indices depreciate.

Although the zero coupon component may be a qualified investment under Section 53601, the derivative component is not. The investment authority provided to California local agencies by Section 53601 is “prescriptive.” If an investment is not included in that section it is not an authorized investment. Investment instruments based on a derivative are not specifically mentioned in Section 53601 and are considered prohibited investments.²

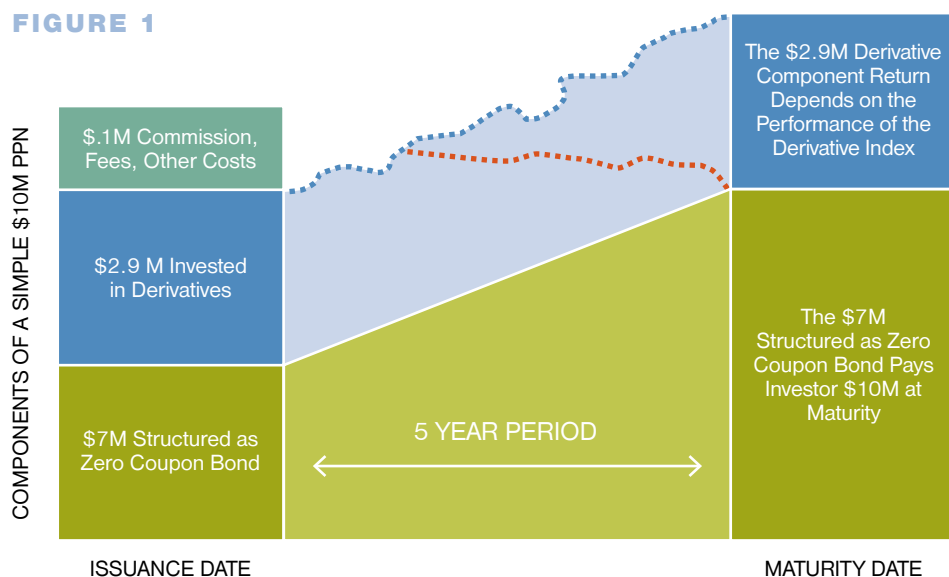
Realizing that PPNs are being marketed to California public agencies as an alternative to low yielding medium term notes, CDIAC published this issue brief to provide

public agencies with a description of the instrument and outline the relevant state regulations governing their use. In addition, we include as an appendix a discussion of the regulations pertaining to the brokering of PPNs.

HOW DO PPNs WORK?

PPNs are debt instruments which guarantee 100 percent of the principal (maturity value) if held to maturity.³ It is important to note that the guarantee is only as reliable as the issuer’s ability to pay. PPN structures vary and can often be complex and difficult to evaluate in terms of risk. For the purpose of this issue brief we will discuss PPNs structured as a zero coupon bond with a derivative component. Figure 1 illustrates the allocation of funds of a simple \$10 million PPN. As indicated in Figure 1, the \$10

FIGURE 1



OTHER NAMES FOR PPNs INCLUDE:

Capital Guarantee Notes, Absolute Return Notes, Minimum Return Notes, Equity Linked Notes (ELN), Market Linked Guaranteed Investment Certificates (market-lined GICs) and other similar names.

¹ Zero coupon bonds and similar investments that start at a level below the face value are qualified investments because their value does increase to par at maturity.

² U.S. government sponsored enterprise (GSEs) derivative products offer traditional fixed-income securities (notes and bonds) as well as other more complex, often customized products. The California Code places no restrictions on these types of investments other than the prohibitions against inverse floaters, range notes, interest-only strips derived from mortgage pools, and securities that could result in zero-interest accrual if held to maturity.

³ Depending on the structure some PPNs can have high fees and hidden costs.

million issue is structured such that \$7 million is allocated to purchase a zero coupon bond while the remaining \$3 million (minus fees, commissions, and other costs) is used to hedge the issuer's obligation under the agreement, thus the issuer may use the note proceeds to purchase futures and options related to an underlying index.

As shown, the zero-coupon bond component will grow to its par (maturity) value of \$10

million, while the derivative component's return will vary based on the performance of the underlying index over the investment period. Based on this structure, the PPN can claim to "guarantee"⁴ no loss of principal because the investor is essentially trading the accreted interest on the zero-coupon bond component for the opportunity to bet on the derivative component of the instrument. The example below illustrates the structure and performance of a PPN including linked

indices along with a calculation of payment amounts under different scenarios.⁵

EXAMPLE: Investor A invests \$10 million in a PPN issued by ABC bank. The note is linked to the weighted value of five indices: the Dow Jones Industrial Average, Nikkei 225 S&P 500, FTSE 100, and Russell 2000. It is a five year note with each index having a specified weight (component weight). Figure 2 summa-

FIGURE 2

SCENARIO #1: CALCULATION OF THE PAYMENT AMOUNT WHEN THE PERCENTAGE CHANGE OF UNDERLYING INDEX PORTFOLIO IS POSITIVE

	INITIAL INDEX LEVEL (START YEAR 1)	FINAL INDEX LEVEL (END OF YEAR 5)	PERCENTAGE CHANGE	COMPONENT WEIGHT	WEIGHTED COMPONENT CHANGE
Dow Jones Industrial Average Index	15,191.70	17,765.00	16.94%	25.00%	4.235%
Nikkei 225 Index	14,484.72	15,010.00	3.63	20.00	0.725
S&P 500 Index	1,695.00	1,945.00	14.75	20.00	2.950
FTSE 100 Index	6,460.01	7,773.40	20.33	25.00	5.083
Russell 2000 Index	1,087.43	1,334.00	22.67%	10.00%	2.267%
					15.260%
PERCENTAGE CHANGE = 15.260%					
INDEX INTEREST = \$10,000,000 X 15.260% = \$1,526,008.17					
TOTAL PAYMENT AMOUNT AT MATURITY = \$10,000,000 + \$1,526,008.17 = \$11,526,008.17					

SCENARIO # 2: CALCULATION OF THE PAYMENT AMOUNT WHEN THE PERCENTAGE CHANGE OF UNDERLYING INDEX PORTFOLIO IS NEGATIVE

	INITIAL INDEX LEVEL (START YEAR 1)	FINAL INDEX LEVEL (END OF YEAR 5)	PERCENTAGE CHANGE	COMPONENT WEIGHT	WEIGHTED COMPONENT CHANGE
Dow Jones Industrial Average Index	15,191.70	14,234.00	-6.30%	25.00%	-1.576%
Nikkei 225 Index	14,484.72	10,465.00	-27.75	20.00	-5.550
S&P 500 Index	1,695.00	1,945.00	14.75	20.00	2.950
FTSE 100 Index	6,460.01	5,351.00	-17.17	25.00	-4.292
Russell 2000 Index	1,087.43	1,120.00	3.00%	10.00%	0.300%
					-8.169%
PERCENTAGE CHANGE = 0.00% (if the sum of weighted component changes is negative then the percentage change is deemed to be zero)					
INDEX INTEREST = 10,000,000 X 0.00% = \$0.00					
TOTAL PAYMENT AMOUNT AT MATURITY = \$10,000,000 + \$0.00 = \$10,000,000					

⁴ Often the guarantee is only for the principal at maturity. Investors should be aware that they can lose the guarantee on their principal and be charged a fee if they sell early. In addition, the guarantee is only as good as the issuer's ability to pay. Therefore, it is important that before purchasing such notes investors evaluate the issuer's credit risk.

⁵ The dollar amounts and indices used in the example are hypothetical but the structure of the note is similar to a PPN issued by a major global financial institution.

izes payment calculations for a positive and negative derivative index change. As Figure 2 indicates the performance of the note is determined by the performance of unrelated underlying indices.

ADDITIONAL STRUCTURING FACTORS

As with most derivative related products, the complexity of the design, payout options, and structures can make it challenging for investors to determine payments and assess the risk and potential for growth of a PPN. In addition, a PPN can be structured in a way that limits payments to a certain percentage even if the values of underlying indices increase at a higher rate. For instance, the note in the example above (Scenario 1) could be structured to pay no more than 10 percent, although the underlying indices increased by 15 percent. Under this scenario, the investor would get \$11 million instead of \$11.5 million at maturity [$\$10M + (\$10M \times 10\%)$].

Another factor determining the return on the investment is the participation rate. The participation rate determines how much of the gain in the underlying index is credited to the PPN. The PPN may be structured in a way that has a participation rate of less than 100 percent. For instance, a participation rate of 75 percent would return only 75 percent of the gains in the underlying index, thereby reducing the potential earnings. If we used a participation rate of 75 percent in the above example (Scenario 1), the total weighted index gains would not be 15.26 percent but 11.45 percent (15.26×75), reducing the earnings by nearly \$400,000.

Some PPNs are structured to meet the requirements of Section 53601.6(b) by offering an additional investment return. For example, a PPN with 100 percent principal protection may offer an additional 1.5 percent interest over the principal, paying 101.5 percent of initial investment at maturity, irrespective of the performance

of the derivative component. These structures may be marketed to local agencies as permissible medium-term notes. However, the derivative component of a PPN is based on securities which, by themselves, are not permissible investments for local agencies, thereby making the note a prohibited investment.

SUMMARY

The marketing efforts by issuers and brokers, coupled with the low interest rate environment and the declining supply of traditional fixed income debt investments, has stimulated interest among local agencies in PPNs and similarly structured products. PPNs are complex products in terms of both structure and risk, with a significant probability of returning zero interest on the initial investment when held to maturity. The derivative component of PPNs is linked to indices based on components (often equity and commodity indices) which are prohibited investments for California local agencies. In addition, California Government Code Section 53601.6(b) prohibits local agencies from purchasing securities which can result in zero interest accrual if held to maturity. As the examples above illustrate, there are circumstances in which a PPNs will return zero interest accrual on the initial investment. Given these facts, CDIAC is of the opinion that—no matter how they are structured—as long as PPNs' derivative components are based on unauthorized investments and there is a probability of zero interest accrual at maturity, PPNs are prohibited investments for California local agencies.

Appendix A:

REGULATIONS CONCERNING THE BROKERING OF PPNs

Offerings of structured products, such as PPNs, generally are conducted as public offerings of securities. As such, these products are governed by the Securities Act of 1933 and Securities Exchange Act of 1934. The Securities Act of 1933 requires that (a) investors receive financial and other significant information concerning securities being offered for public sale; and (b) prohibits deceit, misrepresentations, and other fraud in the sale of securities.⁶ The Securities Exchange Act of 1934 created the Securities and Exchange Commission which has broad authority over all aspects of securities laws. Nonetheless, there is not a single regulation or body of regulations applicable to the issuance, marketing, and sale of PPNs and similarly structured notes. Below we have outlined several relevant regulations issued by the Financial Industry Regulatory Agency (FINRA). Although these regulations govern the issuers and brokers of structured products such as PPNs, investors should review these regulations and ensure that issuers and brokers are providing full disclosure and complying with relevant regulations.

- Financial Industry Regulatory Authority (FINRA) Rule 2110 (Standards of Commercial Honor and Principles of Trade) states that materials and presentations related to the sales of structured products such as PPNs must present a balanced approach regarding risks and benefits. For instance, firms cannot present such products as “conservative investments” unless these statements are accurate. Further, presentations and sales materials which present PPNs as ordinary debt security and omit descriptions and risks related to the derivative portion of the note would violate Rule 2210. Also, in compliance with this Rule, the Na-

⁶ Financial Industry Regulatory Authority (FINRA) Rule 2110, www.sec.gov/about/laws.shtml#secact1933.

tional Association of Securities Dealers (NASD) reminds its members that “disclosure in a prospectus supplement does not cure otherwise deficient disclosure in sales material, even if such sales material is accompanied or preceded by the prospectus supplement.”

- FINRA Rule 2210 (Communication with the Public) related to the National Association of Securities Dealers (NASD) requires that “all communications with the public, including advertisements and public appearances regarding PPNs, must present a fair and balanced picture regarding both their risks and potential benefits. Rule 2210 also prohibits exaggerated, unwarranted or misleading statements and the omission of any material

fact or qualification that would cause a communication to be misleading.”⁷

- FINRA Rule 2310 notes that before determining whether structured products such as PPNs are suitable for a specific investor, the dealer must examine: “(1) the customer’s financial status, (2) the customer’s tax status, (3) the customer’s investment objectives, and (4) such other information used or considered to be reasonable by such member or registered representative in making recommendations to the customer.” FINRA notes that “[t]he derivative component of structured products and the potential loss of the principal for many such products may make them unsuitable for investors

seeking alternatives to debt securities... The profit and loss potential of many structured products is more akin to an option contract.”⁸

- FINRA’s Regulatory Notice 09-73 issued on December 2009 states that: “Firms must ensure that their promotional materials or communications to the public regarding these products are fair and balanced, and do not overstate either the level of protection offered or an investment’s potential returns. Firms also have a duty to ensure that their registered representatives understand the risks, terms and costs associated with these products, and that they perform an adequate suitability analysis before recommending them to a customer.”⁹

⁷ FINRA Rule 2210, http://finra.complinet.com/en/display/display_main.html?rbid=2403&element_id=10648

⁸ FINRA Rule 2310, <http://finra.org/web/groups/industry/@ip/@reg/@notice/documents/notices/p014997.pdf>

⁹ FINRA’s Regulatory Notice 09-73, www.finra.org/web/groups/industry/@ip/@reg/@notice/documents/notices/p120596.pdf